

Current Water Conditions in Massachusetts

May 20, 2008



- April precipitation was above and below normal
- April streamflows were normal and above normal
- April ground-water levels were normal and above normal
- Reservoir levels are generally normal and above normal

Precipitation Conditions

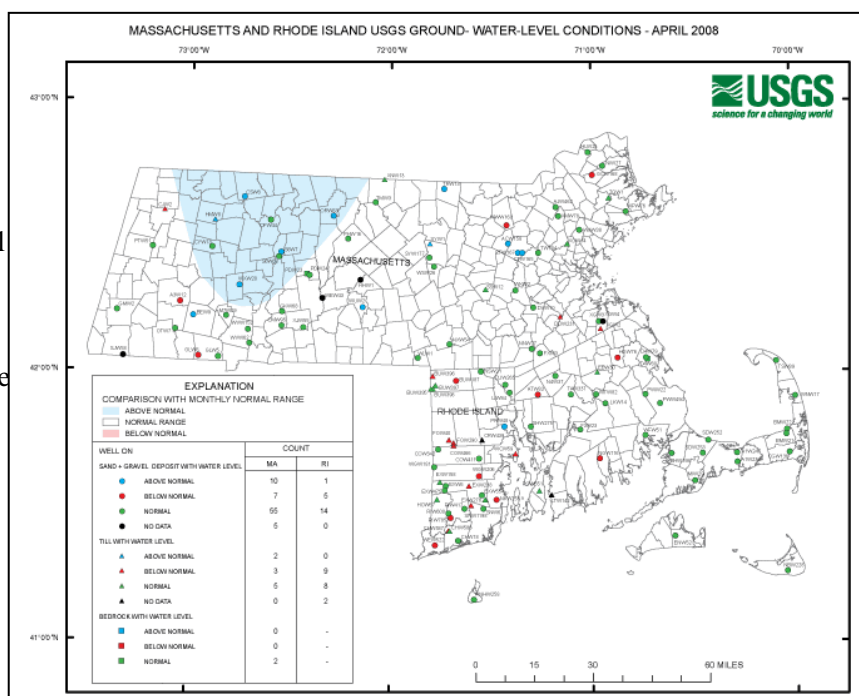
April 2008 State-wide precipitation was slightly above normal, equaling an estimated 4.1 inches, which is about 106 percent of the long-term normal for April. The regions of Massachusetts received between 121 percent (Connecticut River) and 81 percent (Western) of normal precipitation during April. In general, rainfall was limited to several events in early April and several late in the month. There was a period of 10 to 14 days duration in mid-month that had little to no rain. A table of April 2008 estimated precipitation statistics, based on precipitation data from the Department of Conservation and Recreation and National Weather Service precipitation monitoring networks is attached. A map at the back of this report shows the distribution of April total rainfall in New England.

As of May 19, monthly precipitation ranged from 0.5 to 3 inches, which is 25 to 150 percent of normal for this time of the month. Only Cape Cod and Nantucket are above normal, with northwestern MA receiving the least rain so far this month.

Ground Water Levels

Ground-water levels reported by the United States Geological Survey (USGS) at the end of April 2008 were generally normal (white areas on map). In an area of west central Massachusetts the levels were above normal (blue area on map). A record high water level for April was recorded in the Orange 63 observation well. The USGS ground water level map and a Water Conditions Statement for the end of April 2008 can be viewed at the web site:

http://ma.water.usgs.gov/water/water_g.htm



Stream Flow

During April stream flows in Massachusetts that are monitored by the United States Geological Survey (USGS) were generally normal (white area). Flows were above normal (blue area) in the northwest and north central area of the State.

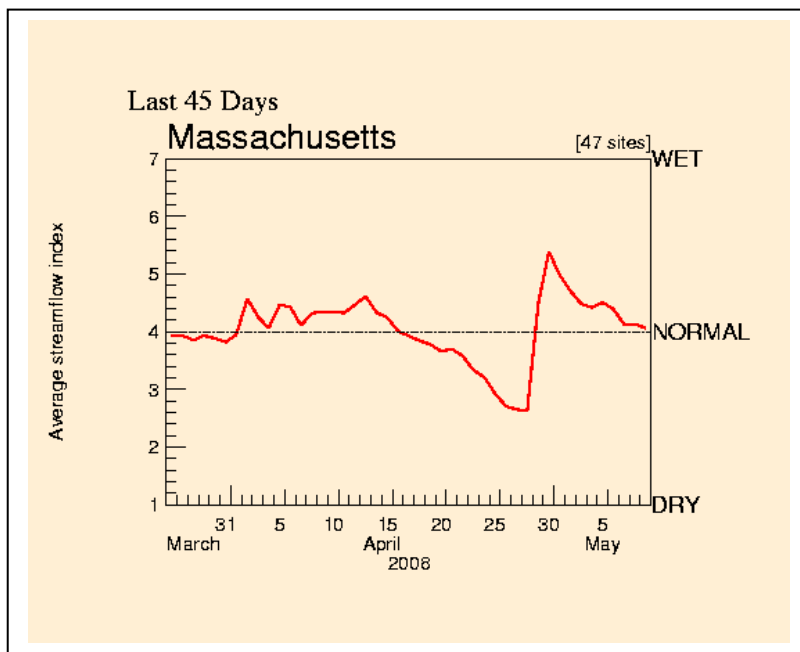
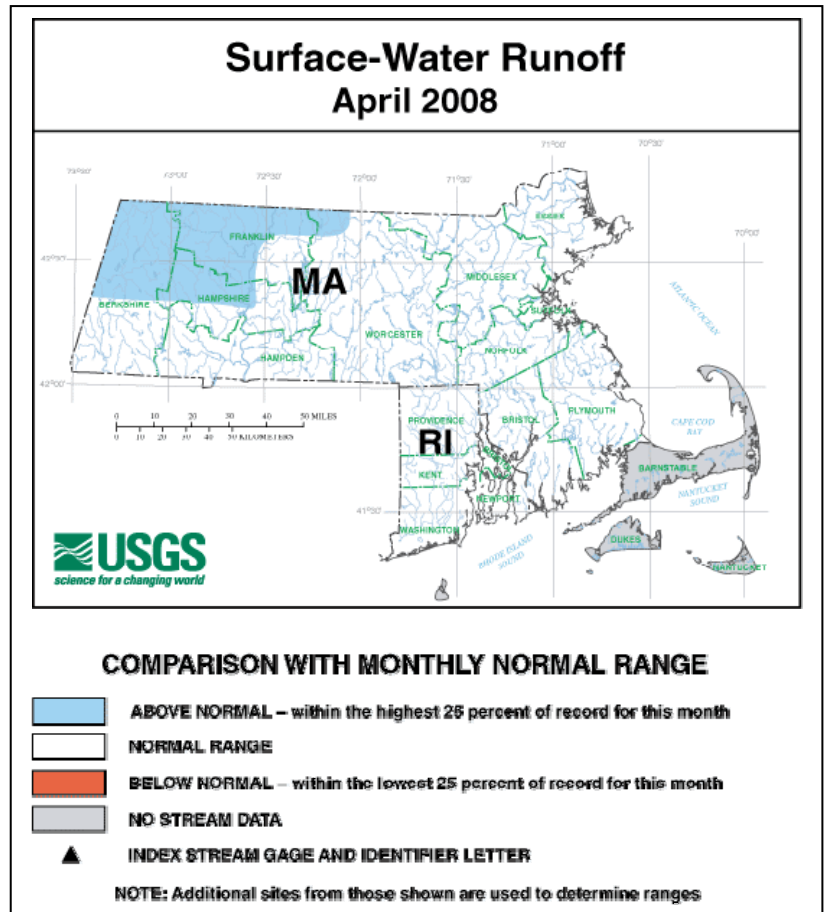
The graph below depicts a composite daily streamflow relative to normal streamflow for Massachusetts as of May 19, 2008. The graph is a composite of 47 gages across the state with a long period of record. Slightly above normal streamflow during the 1st half of April slowly declined to below normal near the end of the month. In late April and early May streamflow rose to above normal in response to several precipitation events. Streamflow declined to below normal as of May 16th but have shown some improvement through the 20th.

Additional information on streamflow is available from the USGS web page:

<http://ma.water.usgs.gov/water/waters.htm>

Information on flooding conditions is available from the NWS web page:

<http://newweb.erh.noaa.gov/ahps2/forecasts.php?wfo=box&view=1,1,1,1,1,1,1&toggles=10,7,8,2,9,15,6>



KEY:

- 1 = New record low for day
- 2 = < 10th percentile
- 3 = 10th – 24th percentile
- 4 = 25th – 74th percentile
- 5 = 75th – 89th percentile
- 6 = ≥ 90th percentile
- 7 = New record high for day

Water Supply Reservoir Levels

Surface water reservoir percent full values for water supply sources provided by water suppliers are listed below. The reservoir levels listed are reported to range from normal to a little above normal for this time of year.

April /May 2008 Massachusetts Reservoir Status

Reservoir/City or Town	Percent Full	Reservoir/City or Town	Percent Full
Quabbin	100	Beverly/Salem	100
Worcester	103	Lynn	87
Cobble Mt./ Springfield	94	Taunton/New Bedford/Assawompsett	101

Note: N.A. Indicates data not available for this report

Fire Danger

A 14 day period of little or no rain, higher than average temperatures, and extremely low relative humidity during the second half of April produced extremely dangerous fire conditions, especially in central and eastern Massachusetts. A high number of wildland fires, a higher than average acreage burned, and one fatality were reported for the month.

Drought Indices/Forecasts

The National Drought Mitigation Center's (NDMC's) May 13, 2008 Drought Monitor Map of the United States, shown at right, indicates that there are no drought conditions in Massachusetts or the entire northeast United States.

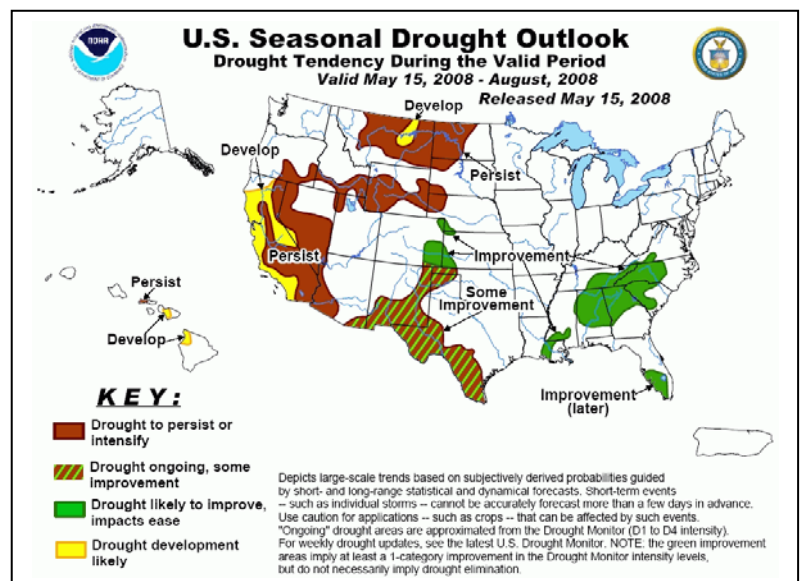
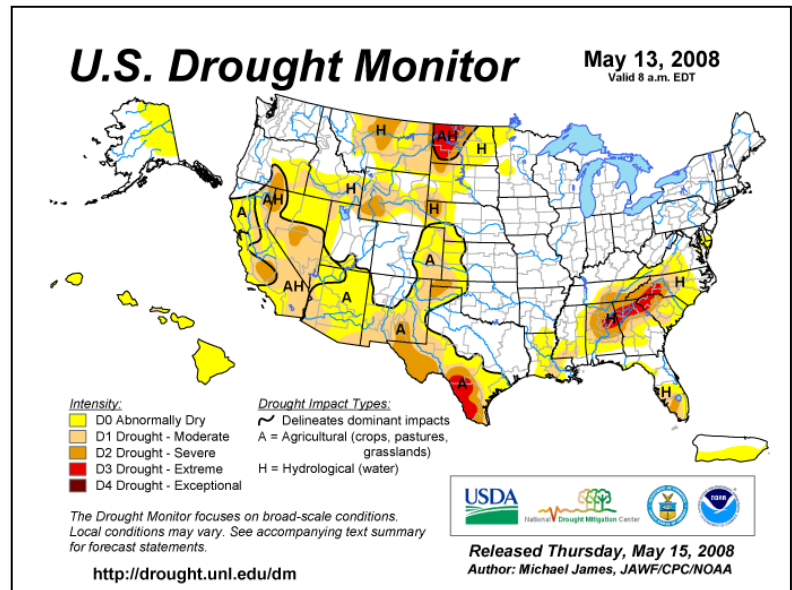
Standardized Precipitation Index:

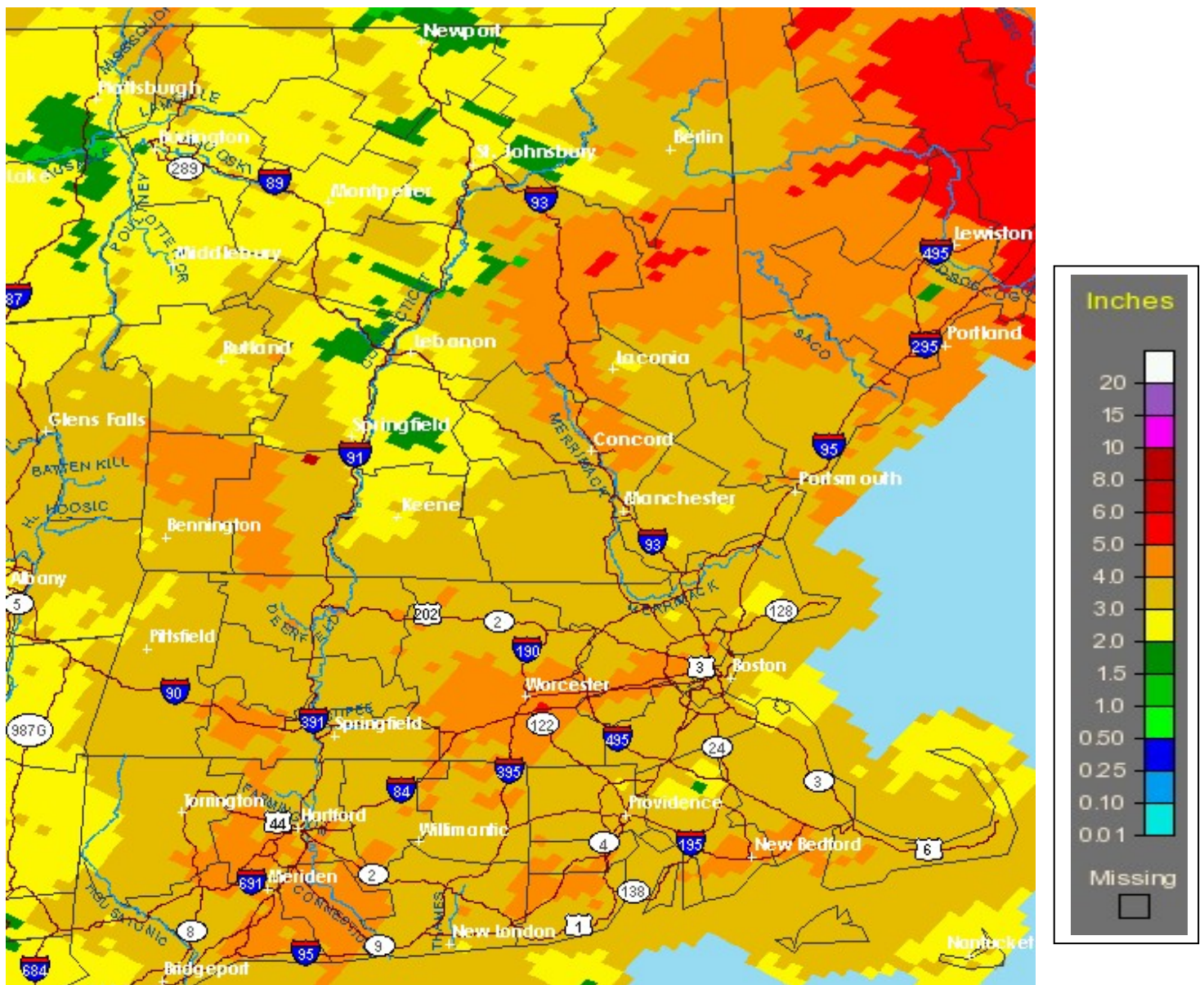
The Western Regional Climate Center's (Desert Research Institute, University and Community College System of Nevada) 1, 3, 6, and 12-Month Standardized Precipitation Index through the end of April shows normal, extremely/moderately wet, extremely to moderately wet, and very wet/normal conditions, respectively, across Massachusetts.

NWS/NOAA's Climate Prediction Center: The U.S. Seasonal Drought Outlook dated May 15, 2008 predicts normal conditions through August 2008.

Extended Forecasts

This week will be unsettled, with showers over southern MA this evening (20th), a cold front passage with showers on Wednesday(21st), and generally below normal temperatures all week. The National Weather Service Climate Prediction Center's extended 6-10 day forecast predicts below normal precipitation and normal temperatures. The 8-14 day forecast is for below normal precipitation and temperatures. The 1-month extended forecast predicts normal precipitation and temperature.





http://www.srh.noaa.gov/rfcshare/precip_analysis_new.php



TOTAL RAINFALL APRIL 2008

This report was prepared by the Massachusetts Department of Conservation and Recreation. Data were obtained from the sources described in the report and April July be preliminary in nature. Additional information, previous and future water conditions reports can be found on our web site: <http://www.mass.gov/dcr/waterSupply/rainfall/>